

Amendments to the Specification:

Please replace the paragraph beginning at page 7, line 17 with the following amended paragraph:

The tuning tip is shaped and sized to maintain the Q-factor of the resonator 140 throughout the intended range of resonant frequencies. It is believed that the deterioration of Q-factor is primarily caused by radiation energy loss through fringe fields. To maintain the Q-factor throughout the tuning range, it is thus advantageous to have a tuning tip that is at least approximately the same size as the size of the inductor 142. Other considerations may limit the desirable size of the tuning tip ~~100~~ 110. For example, the size of tuning tip ~~100~~ 110 typically should not be considerably larger than that of the resonator 140 or the tuning tip would significantly overlap, and interfere with the operation of, the devices neighboring the resonator 140. Thus, it is typically desirable to have a tuning tip that is approximately the same size and shape as the footprint of the inductor under the tuning tip. For example, for a resonator that includes a square-shaped half loop with an interdigitized capacitor inside, it is typically desirable to have square-shaped tuning tip that is approximately the same size as the half loop.

Please replace the paragraph beginning at page 8, line 17 with the following amended paragraph:

In an illustrative embodiment of the invention, schematically illustrated in Figures 2 and 3, a tuning assembly 200 for a filter 250 having four resonators includes a tuning sub-assembly for each resonator. The tuning assembly 200 and filter 250 are rigidly mounted together in a vacuum vessel (not shown). Each sub-assembly includes a tuning tip 210 and an actuator 220. Each actuator 220 is one of the four servomotors in a vacuum-compatible direct current micrometer servomotor package (Model number M-227.25, available from Polytec PI). The servomotor package also includes a four-channel control board (not shown) for interfacing the servomotors to a computer, which controls the movement of the motor shafts 222. Each servomotor 220 can move the shaft 222 (one of 222a-222d) over a distance of about 2.5 mm with an accuracy of 60 nm.

Please replace the paragraph beginning at page 17, line 15, with the following amended paragraph:

Another approach to coarse/fine tuning incorporates a varactor to achieve the fine tuning (best seen in Fig. 13 at designation 1351). U.S. Patent application, 09/633,592 describes the use of varactors to tune superconductive filters.